DIRECT TESTIMONY OF

PANDELIS "LEE" N. XANTHAKOS

ON BEHALF OF

DOMINION ENERGY SOUTH CAROLINA, INC.

DOCKET NO. 2020-63-E

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.

A. My name is Pandelis ("Lee") N. Xanthakos. My business address is 220 Operation Way, Cayce, South Carolina. I am the Vice President of Electric Transmission for Dominion Energy South Carolina, Inc. ("DESC").

Q. BRIEFLY STATE YOUR EDUCATION, BACKGROUND, AND EXPERIENCE.

A. I am a graduate of the University of South Carolina and hold a Bachelor of Science degree in Electrical Engineering, a Masters degree in Electrical Engineering, and a Masters degree in Business Administration from the same. I began my public utilities career when I joined South Carolina Electric & Gas Company[1] in 1998 as a System Controller in the System Control Center. In 2002, I became manager of System Control. In 2007, I became manager of Substation Construction and Maintenance in DESC's Northern Division. In 2012, I became

[1] South Carolina Electric & Gas Company changed its name to DESC in April of 2019. For ease of reference, I refer to the company as DESC for the period before the name change as well.

Director of Electric Transmission and assumed responsibility over System Control, Transmission Planning, and Operations Planning. In 2014, I became Vice President of Electric Transmission and assumed responsibility over the System Control Computer Support, Transmission Support, and ERO Compliance groups.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA ("COMMISSION")?

A. Yes, I previously appeared before the Commission in an Allowable Ex-Parte Communication Briefing in 2014.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to discuss how DESC applies the South Carolina Generator Interconnection Procedures, Forms, and Agreements (the "South Carolina Standard") in the day-to-day management of DESC's interconnection queue.

Q. WHAT IS YOUR FAMILIARITY WITH THE SOUTH CAROLINA STANDARD?

A. I am very familiar with the South Carolina Standard. As discussed in more detail by DESC Witness Raftery, the South Carolina Standard was developed pursuant to the Distributed Energy Resource Program Act of 2014 in South Carolina. The development process included industry groups, such as the South

Carolina Solar Business Alliance, Inc. (the "SCSBA"), representatives from DESC, and members of the South Carolina Office of Regulatory Staff, among others. In my role as Vice President of Electric Transmission, I, along with my direct reports, are responsible for administering the state interconnection queue on a day-to-day basis, which includes performing the relevant studies for each request. Everything we do in that regard is aimed at ensuring strict compliance with the South Carolina Standard.

Q. HOW MANY INTERCONNECTION REQUESTS HAS DESC RECEIVED SINCE THE ENACTMENT OF THE SOUTH CAROLINA STANDARD?

A. Since the enactment of the South Carolina Standard in 2016, DESC has received 297 requests to interconnect. Although 126 of those requests have withdrawn, 100 of those requests are now in service, and DESC currently has 71 pending requests in the state interconnection queue that are subject to the South Carolina Standard. Additionally, it is important to note that DESC received 147 requests to interconnect prior to the enactment of the South Carolina Standard. Many of those requests were transitioned into the South Carolina Standard and have either interconnected or withdrawn since.

Q. PLEASE EXPLAIN HOW DESC ADMINISTERS ITS STATE INTERCONNECTION QUEUE.

A. DESC's Transmission Support group maintains the orderly management of the large number of active requests in the state interconnection queue. Transmission Support closely follows the South Carolina Standard to ensure that each project submitting such a request is afforded an equal opportunity to receive interconnection service, provided such project is willing to comply with its obligations under the South Carolina Standard—such as the performance of certain milestones and submission of deposits. As such, because the South Carolina Standard forbids DESC from unfairly discriminating against certain projects by manipulating the queue, permitting projects to unfairly "jump the line," or otherwise favoring certain projects absent a waiver issued by the Commission, DESC must process requests in the order they were received. In doing so, similarly-situated developers are treated comparably and in a non-discriminatory fashion.

Q. DO YOU BELIEVE THAT THE SOLAR GENERATOR (THE "GENERATING FACILITY") THAT BRIDGESTONE AMERICAS TIRE OPERATIONS, LLC ("BATO") SEEKS TO OPERATE ON THE DESC SYSTEM FALLS UNDER THE SOUTH CAROLINA STANDARD?

A. Yes. I want to be very clear because this is an important, fundamental requirement of the South Carolina Standard. In approving the South Carolina Standard, the Commission recognized the need for the electric utilities in South Carolina to evaluate these projects to ensure the reliability of the Bulk Electric

System. As such, the South Carolina Standard was intended to apply to precisely these types of industrial projects that operate in parallel to the DESC system.

Q. PLEASE EXPLAIN HOW THE GENERATING FACILITY FALLS UNDER THE SOUTH CAROLINA STANDARD.

A. The Generating Facility meets the threshold requirements for applicability contained in Section 1.1.1 of the Procedures in the South Carolina Standard, which mandates that the South Carolina Standard apply to "the interconnection and parallel operation of Generating Facilities with Utility Systems in South Carolina." (emphasis added).

As explained in more detail by DESC Witness Furtick, the Generating Facility will operate in parallel with the DESC system because the Generating Facility will serve the same load as the DESC transmission system. In this context, this means that the BATO facility will be served—simultaneously—by a confluence of power supplied by DESC and the Generating Facility. Because of this, the power supplied by the Generating Facility must necessarily operate within certain parameters to ensure that it does not adversely affect the BATO facility or the DESC system. The very goal of the South Carolina Standard is to ensure that such parallel operation is done in a safe, reliable manner in order to protect the DESC system.

Likewise, the Generating Facility is interconnected to the DESC system given that the BATO facility is connected to the DESC transmission system and receives power from the same. The Generating Facility will not only be connected

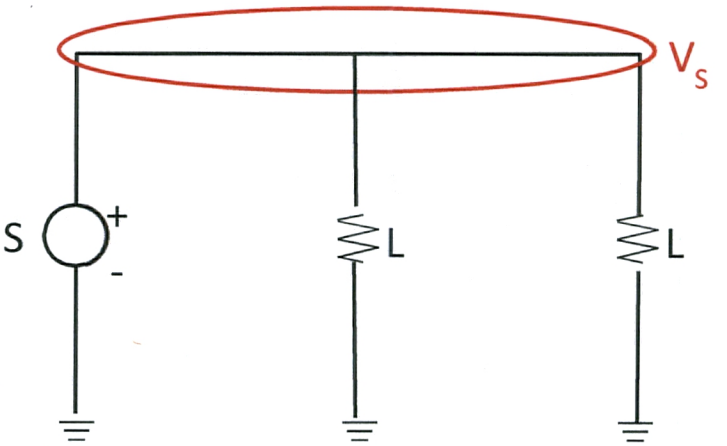
to the BATO facility, but will also generate and supply power to the same. To arbitrarily designate a "behind-the-meter" generator—especially a generator that serves the same load simultaneously with power supplied by DESC—as not being interconnected to the DESC system is simply incorrect. The analysis may be different if the BATO facility and the Generating Facility were not electrically connected in any way with the DESC system, but the evidence here time and again indicates that is not the case. Clearly, the Generating Facility falls squarely within the jurisdiction of the South Carolina Standard, as discussed in greater detail by DESC Witness Furtick.

Q. ON PAGE 7, LINES 11 AND 12 OF BATO WITNESS MCGAVRAN'S DIRECT TESTIMONY, HE STATED HIS BELIEF THAT THE GENERATING FACILITY "IS NOT CONNECTED IN PARALLEL WITH THE UTILITY AND IS IN FACT A SERIES CONNECTION WITH [BATO]." DO YOU AGREE?

A. No, I disagree completely. DESC Witness Furtick's testimony accurately describes "parallel operation" as when generation that is connected to the DESC system—directly or indirectly—is operated in a way that is able to influence the DESC system, even if momentarily. Although I do not agree with BATO's position that the South Carolina Standard addresses the type of connection (i.e., parallel vs. series) rather than the mode of operation, I want to explain why—even if the South Carolina Standard only contemplated parallel connection rather than operation—

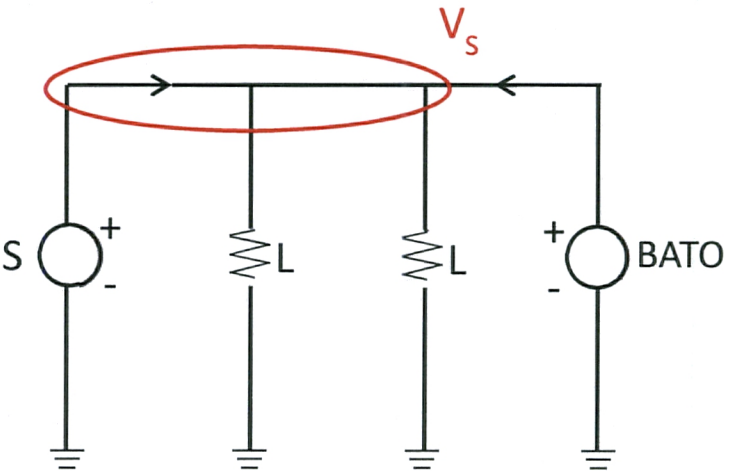
BATO's argument remains incorrect. To be clear, the Generating Facility is electrically connected in a parallel circuit rather than in a series circuit, as BATO suggests.

Parallel circuits connect devices in a side-by-side configuration that allows all loads connected to the circuit to operate at the same voltage. Below is a simple parallel circuit diagram that shows how loads are served in parallel from one source.



In the above parallel diagram, the source (where S is the DESC system) provides power to loads (L) at a predefined voltage (V_S). Any further sources or loads connected to the Node circled in red must also connect at the V_S voltage.

Because BATO wants to connect the Generating Facility in a manner that allows its load to simultaneously receive power from both the DESC system and the Generating Facility, it must connect the Generating Facility to the same node in parallel, as illustrated below:



The diagram above is a simplified, but accurate drawing that correlates to the Exhibit provided in BATO Witness McGavran's direct testimony. As such, it is clear that the Generating Facility not only operates in parallel, but will be connected in parallel as well. The diagram above clearly shows a parallel connection where the DESC system and the Generating Facility serve load instantaneously from either the BATO solar panels when the sun allows and from the DESC system continuously and coordinated to accommodate production surges and drops from the Generating Facility. Therefore, all generators and loads must ultimately be connected in parallel if the intent is for the BATO load to be served either simultaneously or without significant interruption from the two sources of power. Even if the South Carolina Standard addressed only parallel "connection" rather than "operation," the Generating Facility would still fall within its jurisdiction.

Q. ARE YOU AWARE THAT BATO HAS STIPULATED THAT EVEN IF IT IS SUBJECT TO THE SOUTH CAROLINA STANDARD, AS YOU SUGGEST, THAT IT SHOULD BE GRANTED A WAIVER OF THE SAME?

A. Yes.

Q. CAN DESC GRANT THESE WAIVERS?

A. No. The Commission may grant such waivers, not DESC. As described above, DESC must administer the queue in a fair, non-discriminatory manner. As such, the power to grant a waiver of the provisions therein lies with the Commission. However, even if DESC could grant such a waiver, it would be impossible for DESC to issue waivers to certain projects in its queue for certain provisions of the South Carolina Standard while, at the same time, administering the queue in a non-discriminatory manner. Although DESC does receive requests for special treatment for some projects that are unsatisfied with their queue position, any such special treatment absent Commission action would give that developer an unfair advantage in the marketplace to the detriment of other interested parties—such as developers or members of the SCSBA. Indeed, the SCSBA echoed the same concerns in the letter submitted to the Commission in this docket. It appears that DESC and the SCSBA are aligned in their mission to ensure an equal application of the South Carolina Standard to utility-scale projects and behind-the-meter projects alike such that special treatment is not afforded to BATO in a way that unfairly disadvantages

other projects in the DESC queue that have waited in the queue in accordance with the South Carolina Standard.

Q. IF THE GENERATING FACILITY WERE SOMEHOW NOT SUBJECT TO THE SOUTH CAROLINA STANDARD, DO YOU AGREE WITH BATO'S ASSERTION THAT THE GENERATING FACILITY WOULD NOT BE SUBJECT TO THE FERC'S REGULATIONS AS WELL?

A. No, I certainly do not agree. I understand that the question of whether the Generating Facility would be FERC-jurisdictional if the South Carolina Standard did not apply is one that cannot ultimately be decided by the Commission, but it highlights the illogical nature of BATO's argument. Put simply, BATO attempts to sidestep regulation by not only this Commission, but also by the FERC. This means that the Generating Facility—an almost 2 MW generator interconnected to and operating in parallel to the DESC system—could operate independent of any state or federal regulation and without the necessary studies and evaluations that would provide assurance to DESC that the operation of such generator does not compromise the Bulk Electric System. However, DESC has an obligation to ensure the safety and reliability of the transmission system in its role as a Transmission Provider. As such, if the Generating Facility is not subject to the South Carolina Standard, it must be subject to the small generator interconnection procedures established by the FERC. There are no other options unless BATO were to

completely separate the load served by the Generating Facility from the DESC system.

Otherwise, DESC would be unable to assure the safety and reliability of its transmission system not only in this specific scenario, but also in the case of all similarly-situated generators that interconnect with its system that would, as a result, be under no obligation to comply with the South Carolina Standard or DESC's Open Access Transmission Tariff. To my knowledge, this is the first time that an interconnected generator on the DESC system has argued that it is subject to neither the South Carolina Standard nor FERC regulation.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.